

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of
Application of
New and Emerging Technologies for
Video Relay Service Use

)
)
)
)
)
)

CG Docket No. 10-51

**Reply Comments of the Rehabilitation Engineering
Research Center on Telecommunications Access**

Date: April 18, 2011

Christian Vogler, Ph.D.,
Co-Principal Investigator,
RERC on Telecommunications Access,
Director, Technology Access Program
Gallaudet University
800 Florida Ave., NE, SLCC 1116
Washington, DC 20002
(202) 250-2795

and

Gregg C. Vanderheiden, Ph.D.,
Co-Principal Investigator,
RERC on Telecommunications Access,
Director, Trace R&D Center
University of Wisconsin-Madison
1550 Engineering Drive, 2107 ECB
Madison, WI 53706-1609
(608) 262-6966

The Telecom RERC (RERC-TA) is a joint project of the Technology Access Program at Gallaudet University and the Trace Center at the University of Wisconsin-Madison. The RERC is funded by the U.S. Department of Education, National Institute on Disability and Rehabilitation Research, to carry out a program of research and development focused on technological solutions for universal access to telecommunications systems and products for people with disabilities.

The RERC-TA is pleased to see the general support for standard communication protocols, including the strong support in favor of SIP by VRS providers that in the past have relied on H.323. Although at present SIP itself is not free of interoperability problems, it provides a strong base on which efforts toward interoperability can build. Because SIP is the de facto protocol suite toward which mainstream VoIP vendors are moving, it is highly probable that most of remaining interoperability problems for voice, and probably video, will be addressed by the marketplace. Nevertheless, it will be important to ensure that clear interoperability standards for video and text exist and take the specific needs of relay services into account, including emergency calls, access to ten-digit numbers routed via relay services, and interoperability with all of video, audio, and text.

Any non-standard technologies should provide transcoding gateways to standard technologies, so that they can be used for relay, emergency, and point to point video calls. This approach can also be used to provide forward compatibility for legacy equipment.

The RERC-TA would like to emphasize again that minimum standards with respect to call and video quality have been quantified by past research. In particular, 20 frames

per second is what was found to be the minimum recommended frame rate. 15 frames per second results in some degradation of the naturalness of a signed conversation and reduced comprehension, which is resolved at 20 frames per second. Although every consumer should be free to choose his or her own equipment, it is important that deaf and hard of hearing consumers have an easy way to pick out equipment, particularly cameras, that meets or exceeds minimum quality standards, if they so desire.

Respectfully submitted,

/s/ Christian Vogler

On behalf of the RERC on Telecommunications Access¹:

Christian Vogler, Ph.D.,
Co-Principal Investigator,
RERC on Telecommunications Access,
Director, Technology Access Program
Gallaudet University
800 Florida Ave., NE, SLCC 1116
Washington, DC 20002
(202) 250-2795

and

/s/ Gregg C. Vanderheiden

Gregg C. Vanderheiden, Ph.D.,
Co-Principal Investigator,
RERC on Telecommunications Access,
Director, Trace R&D Center
University of Wisconsin-Madison
1550 Engineering Drive, 2107 ECB
Madison, WI 53706-1609
(608) 262-6966

¹ The contents of these comments were developed with funding from the National Institute on Disability and Rehabilitation Research, U.S. Department of Education, grant number H133E090001 (RERC on Telecommunications Access). However, those contents do not necessarily represent the policy of the Department of Education, and you should not assume endorsement by the Federal Government.